

Open Geodata and Imagery for Humanitarian Mapping

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Brief Bio
Session Leader(s)

Cristiano Giovando is a geographer and advocate of open data and open source geospatial software. At the Humanitarian OpenStreetMap Team, he coordinates technical project and imagery acquisition during disaster response activations. In 2015 Cristiano lead the creation of OpenAerialMap, a platform for sharing and finding openly licensed imagery. He was previously a scientific officer at the European Commission, developing an open source system for wildfire information and mapping called EFFIS.

Abstract
Short description, including alignment with conference themes and objectives

Projects such as OpenStreetMap have demonstrated how free and open geographic data is vital to many aspects of disaster response and preparedness efforts. Governments and communities are realizing the importance of open data not only in support of risk modelling and humanitarian response, but also to foster economic development. The increasing availability of very high-resolution satellite, aircraft and drone open imagery, is enabling the creation of even more comprehensive, up-to-date and detailed maps. This session explores how such open data policies and technologies are being applied to different aspects of the humanitarian response cycle including:

- preparedness mapping
- support of disaster response teams
- damage assessment
- training of local communities
- risk modelling

Description
Proposed discussion focus

In this session, participants will learn how open geographic data and open source software are used in humanitarian projects. Presenters will share lessons learned and discuss how crowd-source mapping initiatives such as OpenStreetMap have been integrated into preparedness and humanitarian response projects. The session will focus specifically on:

- What aspects of the humanitarian response cycle benefit directly from data openness
- How open source software provides more sustainable tools to humanitarian mapping
- Data models, standards and interoperable services in support of open geodata exchange
- Innovative technology and best practices for sharing open geographic data
- examples of crowdsourcing mapping projects for preparedness and in response to disasters
- How small UAVs/drones are democratizing remote sensing
- Issues of privacy and security with open geographic data

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Objectives

Justification and expected impact during and after the conference

The objective of this session is to discuss and explore the current and emerging technology in humanitarian response mapping. Many humanitarian initiatives have been relying on open geographic data such as OpenStreetMap to create maps and models that are used during response and preparedness operations. Much of the process to make that data available and efficiently shared is still not well defined or formalized.

Proceedings of this session will serve as a reference on best practices surrounding the use of open geodata and present real world examples of the use of open geographic data in humanitarian response. The software and data mentioned during each presentation will also be openly available for anyone to use and adapt, potentially fostering further collaboration within research groups and humanitarian professionals.

Target Audience

Professionals in any phase of the disaster response cycle, decision makers, emergency response coordinators, software developers, and volunteers.